

1. BAYDA, M. F.
2. USSR (600)
4. Tree Planting
7. Mikhaýl Sunko's team kept its word.
Les i step' 4 No. 12, 1952

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Uncl.

SOV/125-12-2-8/14

18(5)

AUTHOR: Asnis, A.Ye., and Bayda, P.F.

TITLE: Use of Gas-Cutting Machines with Copying Mechanisms for Welding Complex Joints (Ispol'zovaniye gazorezatel'nykh mashin s kopirnymi mekhanizmami dlya svarki shvov slozhnogo kontura)

PERIODICAL: Avtomaticheskaya svarka, 1959, Vol 12, Nr 2, pp 66-70 (USSR)

ABSTRACT: Until the production of photoelectronic copying welding machines is organized, it is expedient to use the existing designs for gas-cutting machines produced by VNII Avtogen. In production conditions the static hinged machine tool type ASSh-2 for contour cutting from a pattern has proved itself. The Paton Institute has developed the technology of flux-welding complex contour parts on the ASSh-2 machine. A diagram of the main part of the installation is shown. Guidance of the machine is performed by a shield mounted on an external hinged frame, which carried the rheostat, ammeter and voltmeter.

Card 1/3

SOV/125-12-2-8/14

Use of Gas-Cutting Machines with Copying Mechanisms for Welding Complex Joints

Using hinged cutting machine tools ASSh-2 or ASSh-1 it is possible to weld angled and junction seams on parts 1500 x 750 mm or 1000 x 1000 mm. Speed of welding from 6-40 m/hr. The Institute has also developed techniques for welding complex contour parts by using a vertical electrode. Experiments have shown that the pumice-like flux AN - 60 (42.5 - 46.5% SiO₂, 37.0 - 41.0% MnO, 5.0 - 7.0% CaO, 5.5 - 7.5% CaF₂, up to 3.0% R₂O₃, up to 1% MgO, up to 1.5% FeO, up to 0.15% S, up to 0.15% P) has some advantages over AN - 348A because it ensures a smoother outline of the seams. The conclusions of the article are that gas-cutting machines for complex contour seams are advisable. Secondly that when using the ASSh-2 installation, smoother outlines of the seam can be obtained by using flux AN - 60 which is smelted in electrical furnaces. Welding is carried out using a vertical electrode. Thirdly the new technique has been proven both in laboratory and production conditions. The use of gas-cutting machines for complex contour welds is con-

Card 2/3

SOV/125-11-2-8/14

Use of Gas-Cutting Machines with Copying Mechanisms for Welding
Complex Joints

siderably simpler and more economical than with other
copying mechanism installations now in use. There are
5 diagrams.

ASSOCIATION: Ordena trudovogo krasnogo znameni institut elektrosvarki
imeni Ye.O.PatonaAN USSR (Order of the Red Banner of
Labor Institute of Electric Welding imeni Ye.O.Paton of
the AS UkrSSR)

SUBMITTED: December 17, 1958

Card 3/3

BAYDA, P. P.

The methodology of Bronchography. Voenno-Meditsinskiy Zhurnal, No. 1, p 72, 1955.

BAYDA, P. P. (Lieutenant Colonel of the Medical Service)

"The Significance of Bronchography in the Differential Diagnosis
of Pulmonary Tuberculosis and Chronic Nonspecific Pneumonia."

Voenno-Meditsinskii Zhurnal, No. ⁷12, December 1961, pp ~~62-73~~

BAYDA, P.P., podpolkovnik meditsinskoy sluzhby

Importance of bronchography in the differential diagnosis of pulmonary tuberculosis and chronic nonspecific pneumonia. Voen.-med. zhur. no.7: 82 J1 '61. (MIRA 15:1)

(BRONCHI__RADIOGRAPHY)

(TUBERCULOSIS__DIAGNOSIS)

(PNEUMONIA)

EAYDA, P.P., kand. med. nauk

Allergic infiltrates in the lungs. Uch. zap. Stavr. gos.
med. inst. 12:394-395 '63.

State of bronchi in acute pneumonia in a brochographic image.
Ibid.:396-397

Characteristics of brinchiial lesions in chronic nonspecific
pneumonia and pulmonary tuberculosis in an X-ray image.
Ibid.:398-399 (MIRA 17:9)

1. Kurs rentgenologii (zav. kand. med. nauk P.P. Bayda)
Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

BAYDA, P.P., kand. med. nauk; KARASHUROV, Ye.S., kand. med. nauk

X-ray study of the respiratory function of the lungs,
diaphragm, and intercostal muscles in bronchial asthma.

Uch. zap. Stavr. gos. med. inst. 12:251-253 '63.

(MIRA 17:9)

1. Kafedra obshchey khirurgii (zav. prof. Yu.S. Gilevich)
kurs rentgenologii i radiologii (zav. kand. med. nauk
P.P. Bayda) Stavropol'skogo gosudarstvennogo meditsinskogo
instituta.

RUSHCHINSKIY, V.M., kand.tekhn.nauk; DUEL', M.A., kand.tekhn.nauk;
DEMENT'YEV, V.A., inzh.; NECHAYEV, B.Ya., inzh.; ~~CHAYEV, V.A.~~,
inzh.; SHTEFAN, V.Ye., inzh.

Experimental system for the control of the 67-2SP boiler and
K-50-90 turbine block by means of a control computer.
Teploenergetika 9 no.10:32-35 0 '62. (MIRA 15:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut kompleksnoy
avtomatizatsii i Khar'kovskoye upravleniye energokhozyaystva.
(Automatic control) (Electric power stations)

BAYDA, V.D. (Donetsk)

Domiciliary clinics. Sov.zdrav. 21 no.8:13-14 '62.

(MIRA 15:11)

1. Iz Tsentral'noy klinicheskoy bol'nitsy Donetska (glavnyy
vrach Bayda, V.D.).

(HOSPITALS—OUTPATIENT SERVICES)
(CARE OF THE SICK)

LYUBOMIROV, V. Ye., kand. med. nauk; BAYDA, V. D.; YESHCHENKO, H. S.; MALIS, M. A.

Course and outcome of periarteritis nodosa. Sov. Med. 27 no. 7:
62-68 J1'63. (MIRA 16:9)

1. Iz klinicheskogo otdela Donetskogo nauchno-issledovatel'-
skogo instituta fiziologii truda (dir. - kand. med. nauk B. N.
Onopko) i Tsentral'noy klinicheskoy bol'nitsy Donetska (glav-
nyy vrach V. D. Bayda), nauchnyy konsul'tant raboty - prof. I. V.
Vorob'yev.

(PERIARTERITIS NODOSA)

BAYDACHENKO, F., redaktor; PIPKO, V., tekhnicheskiy redaktor.

[Mechanization of mines as an effort for continuous operation]
Mekhanizatsiya shakht v bor'be za tsiklichnost'. [n.p.] Stalinskoe
oblastnoe izd-vo, 1952. 145 p. (MIRA 8:2)
(Coal mines and mining)

ALEKSANDROV, S.N.; GALKOVSKAYA, K.F.; BAYDACHENKO-ROSTOVTSOVA, T.I.

Treatment of experimental radiation sickness with bone marrow
and antibiotics. Vop. onk. 11 no.10:77-81 '65.

(MIRA 18:10)

1. Iz Tsentral'nogo nauchno-issledovatel'skogo rentgeno-radiolo-
gicheskogo instituta Ministerstva zdavookhraneniya SSSR (direktor -
Ye.I.Vorob'yev).

BAYDAK, D.A.

~~Repair and installation combine of the Moscow City Baking Trust.~~
Khleb.i kond.prom. 1 no.10:19-20 O '57. (MIRA 10:11)
(Moscow--Bakers and bakeries)

MIKULIN, S.A.; KOLESNICHENKO, A.G.; RAYDAK, G.A.

Desulfuration of cast iron in ring founding. Lat. proisv.
no.9:42 S '60. (MIRA 13:9)
(Iron founding) (Desulfuration)

DAYDAR, V. I.

1951 Absorption of radio-phosphorus and radio-sulphur from the
soil by plants

Baydak V.I.

USSR/Human and Animal Physiology - Blood.

T-4

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31588

Author : Baydak, V.I.

Inst :

Title : Permeability of Erythrocytes in Relation to Phosphates
Normally and With Burns.

Orig Pub : V sb.: Vses. konferentsii po med. radiol. Eksperim. med.
radiol. M., Medgiz, 1957, 287-288.

Abstract : No abstract.

Card 1/1

PETROV, D.G.; SAVCHIK, A.B.; DZIS', I.P.; BAYDAK, V.I.

Morphological and biochemical changes in homologous skin following
thermal treatment with formalin. Gemat. i perel. krovi 1:156-160
'65. (MIRA 18:10)

1. I.'vovskiy institut perelivaniya krovi.

BULAKH, G.D.; BAYDAK, Ye.N.

Approximate calculations for a beam on an elastic foundation of varying rigidity. Gidrotekhnika no.2:11-16 '62. (MIRA 16:5)
(Beams and girders)

5.4700

77850

SOV/79-30-2-1/78

AUTHORS: Shchukarev, S. A., Borisova, Z. U., Baydakov, L. A.

TITLE: Concerning Heat of Solution of Magnesium Perchlorate Hexahydrate

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 2, pp 353-355(USSR)

ABSTRACT: Heats of solution of $\text{Mg}(\text{ClO}_4)_2 \cdot 6\text{H}_2\text{O}$ for various dilutions at 25° were measured in a microcalorimeter [described in Mishchenko, K. P., Pronina, M. Z., et al., Zhur. priklad. khim. 27, 1003 (1954)]. Magnesium perchlorate, obtained by dissolving MgO in perchloric acid, was recrystallized 3-5 times and dried for 24 hr over concentrated sulfuric acid (the time of drying was determined by finding the maximum ΔH in the plot of ΔH vs time). Tables 1 and 2 list the experimental results (each is an average of ΔH found in 8-9 experiments. Figure 2 gives the graphical representation along with the ΔH for zinc perchlorate hexahydrate [Shchukarev, S. A., Andreyev, S. N., et al., Zhur. obshchey khim., 29, 2468 (1959)]. It can be seen that the limiting value for integral heat of dilution of the magnesium perchlorate hexahydrate equals 1.00 kcal/mole (reached at dilution 1:500). There are 2 figures;

Card 1/3

Concerning Heat of Solution of Magnesium Perchlorate
Hexahydrate

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SOV/79-30-2-1/78

2 tables; and 6 references, 3 Soviet, 1 Belgian, 2 U.S. The
U.S. references are: Smeets, Ch. A., 27, Nr 1, 5629 (1936); Smit,
Rees, Hardy, J. Am. Chem. Soc., 54, 3513 (1932).

ASSOCIATION:

Leningrad State University (Leningradskiy gosudarstvennyy
universitet)

SUBMITTED:

February 10, 1959

Table 1

Dilutions	ΔH_{av} (kcal/mole)
1: 1000	1.00 ± 0.03
1: 700	1.00 ± 0.03
1: 500	1.00 ± 0.03
1: 300	1.17 ± 0.03
1: 200	1.73 ± 0.03
1: 100	1.75 ± 0.03
1: 50	1.86 ± 0.03
1: 30	1.94 ± 0.03

Table 2

Dilutions	ΔH_{av} (kcal/mole)
1: 25	2.05 ± 0.02
1: 15	2.47 ± 0.02
1: 11	2.91 ± 0.02
1: 9	3.24 ± 0.02
1: 8	3.42 ± 0.02
1: 7	3.56 ± 0.02
1: 6.5	3.71 ± 0.02

Card 2/3

Concerning Heat of Solution of Magnesium Perchlorate
Hexahydrate

77850

SOV/79-30-2-1/78

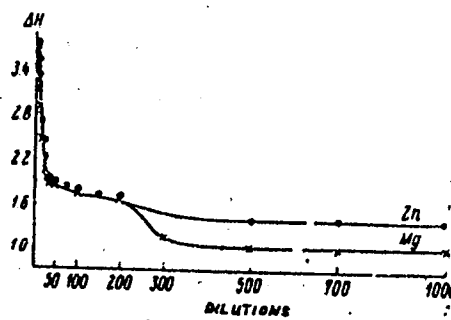


Fig. 2. Heats of dilution of hexahydrates of magnesium and zinc perchlorates at various dilutions.

Card 3/3

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1559 1043 1035
1385 3005

S/080/61/034/011/007/020
D227/D301

AUTHORS: Baydakov, L.A., Borisova, Z.U., and Myuller, R.L.

TITLE: Electrical conductivity of the selenium-arsenic system in a vitreous state

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 11, 1961, 2446 - 2454

TEXT: In the present work the authors studied the possibility of stabilizing the conductivity of selenium by interlocking it with chains of atoms of polyvalent metals. Among the latter class of elements arsenic and germanium proved to be of most interest. There are two ways in which arsenic affects selenium. During glass formation it may close the chains to give polycycles of the type As_4Se_{6n} and therefore, block the current conductors or i^+ may form an open mesh $AsSe_{3n}$, ensuring "through" conductivity. Glass melts of selenium-arsenic of the type $SeAs_x$ where $0 \leq x \leq 1.25$ were obtained by the method of N.A. Goryunova and B.T. Kolomiets (Ref. 11: Izv. AN SSSR ser.fiz. 20, 1496, 1956) according to which the two ele-
Card 1/5

30196

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D227/D301

Electrical conductivity of the ...

ments are fused in vacuum and kept at 680 - 700°C for 2 hours while subjected to vibration followed by slow cooling. Another series of samples was prepared without vibration but with additional heating to 280° over a period of 2 hours. Glasses of AsSe_y where $1.25 \leq y \leq 20$ were obtained, for which the temperature relation of the conductivity was reproducible and the values of energy ϵ and factor σ_0 in the expression $\sigma = \sigma_0 \exp(-\epsilon/2kT)$, were sufficiently near. X

The melts were characterized by their density "d" and microhardness H based on 1 mole per 1 cc. of structural elements. From the experimental results it was found that $\text{AsSe}_{1.5}$ had a maximum microhardness which indicated the presence of a meshlike polymeric compound. The uniformity of H, on the other hand, indicated the absence of compound As_2Se_5 .

Transition of $\text{AsSe}_{1.5}$ to As_2Se_2 was accompanied by the decrease of H and appearance of weak As-As bonds in As_2Se_2 structures. The conductivity of the investigated systems was measured by potentiometric method, if however, the resistances of specimens exceeded 10¹¹ ohms

Card 2/5

30196

S/080/61/034/011/007/020
D227/D301

Electrical conductivity of the ...

ohms. A method of charging and discharging of a small condenser was used, in which the charge was allowed to leak through the insulation of the electrometric part of the system. The resistance was then calculated from the equation

$$R_x = \frac{V_p R_z}{V} \left(1 - e^{-\frac{t}{CR_z}} \right)$$

where V_p - potential across the specimen, V - potential across the condenser C at the time t , R_z - resistance of the insulation. Each specimen was subject to measurements involving comparison with a standard resistance and charge-discharge method. The absence of hysteresis was determined by taking measurements during temperature increase and decrease. From the measurements of temperature, electrical conductivity and evaluations of ϵ and σ , the following inferences were made: The electrical conductivity of selenium containing traces of admixtures is not stable due to the case, with which the structural transformation reaction

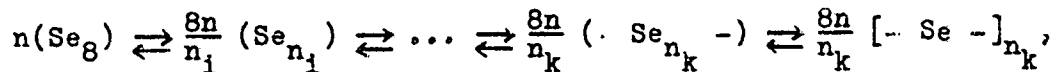
Card 3/5

30196

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D227/D301

Electrical conductivity of the ...



occurs, resulting from the shift of the complex multistage equilibrium and transformation of Se_8 and cyclic polymers characteristic of liquid Se, into disorderly and then orderly chain arrangements, the latter being characteristic of crystalline hexagonal selenium. The total number of covalent bonds is however retained and the shift of equilibrium proceeds with very small energy effects. The fact that conductivity varies within 10^{-15} to 10^{-5} is due in the first place to the rearrangement of rings, blocking the current carriers, into open chains ensuring transmission of voids and electrons, and is illustrated by the rapid decrease of electrical conductivity on fusion of the hexagonal selenium and analogous decrease on transition from hexagonal selenium ($-\text{Se}_n-$, $\sigma = 10^{-5}-10^{-7} \Omega^{-1} \text{cm}^{-1}$) to monoclinic selenium (Se_8 , $\sigma = 10^{-15} \Omega^{-1} \text{cm}^{-1}$). The complex transitional structural and valency states of hard selenium at the various stages of heating occurs as a result of covalent bond interchange during the overlapping of electron spheres in the process

Card 4/5

30196

S/080/61/034/011/007/020
D227/D301

Electrical conductivity of the ...

of rotation-vibration movement. As shown by the conductivity values the introduction of arsenic fixes the mesh-structure of high stability, exhibiting high hardness, high softening point and more stable conductivity. Optimum strength and conductivity is shown by a $\text{AsSe}_{1.5}$ compound having a maximum density of triple covalent bond packing. The increase of As content reduces the microhardness and as a result of weakening of the $\text{AsSe}_{1.5}$ structure conductivity begins to vary. There are 4 figures, 1 table and 40 references: 23 Soviet-bloc and 17 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: C.H.L. Goodman, Phys. Chem. Solids. 6, 4, 305, 1958; S.S. Flaschen, A.D. Pearson and W.R. Nakthovers, J. Am. Cer. Soc. 42, 450, 1959; A.F. Joffe and A.R. Regel, Progress in Semiconductors, 4, 239, 1960; E. Mooser and W.B. Pearson, J. Electronics, 1, 629, 1956.

SUBMITTED: March 14, 1961

Card 5/5

37912

S/054/62/000/002/008/012
B101/B104

15.2640

AUTHORS: Myuller, R. L., Baydakov, L. A., Borisova, Z. U.

TITLE: Electric conductivity of the system As - Se - Ge in the vitreous state

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 2, 1962, 94 - 102

TEXT: Glasses having the composition AsSe_xGe_y were investigated to establish the effects of the trigonal structure of AsSe_3 and of the tetrahedral structure of $-\text{Se}_2\text{GeSe}_2-$ on their microhardness and electric conductivity. To avoid formation of selenium rings or chains $x - 2y$ was chosen ≤ 1.5 . After chemical analysis the concentrations of the structural units $[\text{GeSe}_{4/2}]$; $[\text{AsSe}_{3/2}]$; $[\text{AsSe}_{2/2}]$; $[\text{AsAs}_{3/3}]$; and $[\text{GeGe}_{4/4}]$ in the glasses were calculated. Four types of glass were found: (I) with $x - 2y = 1.5$, i.e., containing enough Se for the unpaired electrons therein to form complete valence electron octets with the unpaired electrons of Ge and As. In this case $[\text{GeSe}_{4/2}]x = y[\text{As}]$, $[\text{AsSe}_{3/2}] = [\text{As}]$.

Card 1/ 3

Electric conductivity of the...

S/054/62/000/002/008/012
B101/B104

Type (II) with $1.0 \leq x - 2y < 1.5$, in which the structural units $[\text{AsSe}_{3/2}]$ and $[\text{AsSe}_{2/2}]$ are due to the low Se content. Type (III) with $0 \leq x - 2y < 1.0$ contains As which is not bound with Se, $[\text{AsAs}_{3/3}]$. In type (IV) with $x - 2y < 0$, there is not enough Se to bind all of the Ge, so the structural units $[\text{GeGe}_{4/4}]$ are formed. Microhardness H as calculated from the microhardnesses h_i of the structural units was in good agreement ($\pm 4\%$) with the rule of additivity $H = \sum h_i [x_i]$, where $[x_i]$ is the concentration of the structural units (SU). Assuming that $h(\text{AsSe}_{3/2}) \approx 6.0 \cdot 10^3 \text{ (kg/mm}^2\text{)(cm}^3\text{/mole SU)}$, the authors calculated $h(\text{GeSe}_{4/2}) \approx 12 \cdot 10^3$ for type (I), $h(\text{AsSe}_{3/2}) \approx 5 \cdot 10^3$ for type (II) and $h(\text{AsAs}_{3/3}) \approx 9 \cdot 10^3$, $h(\text{GeGe}_{4/4}) \approx 14 \cdot 10^3 \text{ (kg/mm}^2\text{)(cm}^2\text{/mole SU)}$ for types (III) and (IV). The electric conductivity, the modulus of electric conductivity, and the energy ϵ_0 , as determined by the authors are consistent with the valency theory of continuous electron transfer in $\text{GeSe}_{4/2}$ and

Card 2/3

Electric conductivity of the..

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B101/B104

AsSe_{3/2}. The other SU were blocked. Carrier mobility is limited by disturbances in the periodicity of the covalent bonds and depends on which bonds predominate. This paper was read at the XX nauchnaya konferentsiya LISI (20th Scientific Conference of the LISI), February, 1962. There are 1 figure and 2 tables. The most important English-language reference is: L. Pauling, The nature of the chemical bond. 3 ed., N. Y., 1960.

SUBMITTED: January 12, 1962

Card 3/3

BAYDAKOV, L.A.; BORISOVA, Z.U.; IPAT'YEVA, V.V.

Conductivity of vitreous $\text{AsSe}_a - x\text{S}_x$. Vest.LGU 17 no.22:90-95
'62. (MIRA 15:12)
(Arsenic) (Vitreous materials--Electric properties)

S/058/63/000/003/059/104
A062/A101

AUTHORS: Baydakov, L. A., Borisova, Z. U., Myuller, R. L.

TITLE: Investigation of the electric conductivity of glass-like semiconductors $AsSe_xGe_y$

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 14, abstract 3E94
(In collection: "Fizika", Leningrad, 1962, 24 - 26)

TEXT: The electric conductivity of the As-Se-Ge system was investigated under conditions of absence of excessive Se. There was established the additive dependence of the microhardness on the concentration of the structural assemblies. The experimental data show that the conductivity of glasses is caused mainly by the ionization of valent bonds in the structural assemblies of $GeSe_{4/2}$ and $AsSe_{3/2}$ and by the motion of the carriers along the valent bonds. At the transition from glass with 90% of $AsSe_{3/2}$ to glass with 70% of $GeSe_{4/2}$ there was observed a change in the doubled energy of mobility activation 1.8 - 2.2 eV in accordance with the previously determined values of the ionization energy of the valent bonds. The structural assemblies containing no Se had little effect

Card 1/2

Investigation of the electric conductivity of...

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A062/A101

on the electric conductivity. For different compositions, the previously introduced modulus (abstract 3E93) was calculated. From the simplest classical considerations, the preexponential factor in the expression for the conductivity was calculated. Except for the cases of mutual blocking of the structural formations of $\text{GeSe}_{4/2}$ and $\text{AsSe}_{3/2}$, these calculations yield values approximating the experimental ones.

E. Nagayev

[Abstracter's note: Complete translation]

Card 2/2

BAYDAKOV, L.A.

Conductivity of the vitreous system As-Se-Ge. Vest.LGU 17
no.22:105-113 '62. (MIRA 15:12)
(Arsenic) (Vitreous materials—Electric properties)

MYULLER, R.L.; BAYDAKOV, L.A.; BORISOVA, Z.U.

Experimental data on the conductivity of the arsenic - sulfur
vitreous state system. Vest.LGU 17 no.22:77-89 '62.

(MIRA 15:12)

(Arsenic) (Sulfur) (Vitreous materials--Electric properties)

L 12672-63

EWP(g)/EWT(a)/BDS. AFETC JD

ACCESSION NR: AP3000640

E/080/63/036/003/0500/0506

AUTHOR: Baydakov, L. A.; Borisova, Z. U.; Pronkin, A. A.

TITLE: Solution kinetics of vitreous arsenic sulfides in alkali solution

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 3, 1963, 500-506

TOPIC TAGS: solution kinetics, arsenic sulfides, activation energies, solution rate

ABSTRACT: The rates of solution of vitreous AsS sub 1.5, AsS sub 1.54, AsS sub 1.58, AsS sub 1.62, AsS sub 1.69 and AsS sub 2.5 in aqueous alkali solutions of different concentrations at temperatures from 15 - 45° were investigated. Tabulated data show an increase in solubility rate with an increase in temperature; with agitation; and with an increase in the NaOH concentration, where the rate of AsS sub 2.5, faster than for AsS sub 1.5, was explained by the dipole structure of the former and the chain-like structure for AsS sub 1.5. In the stoichiometric AsS sub 1.5 and AsS sub 2.5 (the other sulfides studied being As sub 2 S sub 3 with additions of S), the most stable and difficult to dissolve, the solubility proceeds with the formation of complex anions, hydration and finally solution. Without agitation, where activation energies are less than 10 kcal/mol, diffusion determines the rate of solution; with agitation, the effect of diffusion process is over-

Card 1/2

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ACCESSION NR: AP3000640

shadowed, activation energies are about 14 kcal/mol and the rate of solution determines the chemical reaction on the surface of the solid phase. In sulfides richer in S, the S settles out passivating the sample surface and not permitting reproducible results. "In conclusion [the authors] express deep appreciation to R. L. Myuller for constant attention and valuable advice on the conduct of the present study." Orig. art. has: 5 tables, 3 figures, 9 equations.

ASSOCIATION: none

SUBMITTED: 5Dec61

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: CH

NO REF SOV: 010

OTHER: 003

Card 2/2

KOZLOV, K.D.; prinimali uchastiye: ZAGORUYKO, K.Ye; ROZOVA, Z.I.; BULATETS-
KAYA, I.P.; TREYSTER, F.Z.; SHCHUKINA, I.M.; ZAYTSEVA, N.Ye.; KRYLO-
VA, L.S.; AMEL'YAN, G.Ye.; BAYDAKOV, N.N.; RYZHKOV, A.N., red.; ME-
MESHKINA, L.I., telm. red.

[Economy of Sakhalin Province; statistical collection] Narodnoe kho-
zjaistvo Sakhalinskoi oblasti; statisticheskii sbornik. Iushno-Sa-
khalinsk, Sakhalinskoe knizhnoe izd-vo, 1960. 103 p. (MIRA 14:6)

1. Sakhalin (Province) Statisticheskoye upravleniye. 2. Kollektiv
rabotnikov Statisticheskogo upravleniya Sakhalinskoy oblasti (for
all except Ryzhkov, Memeshkina). 3. Nachal'nik Statisticheskogo
upravleniya Sakhalinskoy oblasti (for Kozlov)
(Sakhalin--Statistics)

MAMUNYA, A.U.; PSHEVORSKAYA, V.Ya.; BAYDAKOV, N.P.

Improving the aeration process in the working and inoculation
fermenters. Trudy Ukr.NIISP no.8:100-108 '63. (MIRA 17:3)

BAYDAKOV, P. A.: Master Med Sci (diss) -- "The effect of anaphylaxis on the
higher nervous activity of animals (rabbits)". Voronezh, 1958. 16 pp (Voronezh
State Med Inst), 200 copies (KL, No 9, 1959, 117)

MAMUNYA, A.U.; BAYDAKOV, N.P.; PSHEVORSKAYA, V.Ya.

Use of the automatic refractometer for the testing and regulation
of the concentration of molasses solutions. Report No.2. Trudy
UkrNIISP no.9:21-25 '64. (MIRA 17:10)

BAYDAKOV, A.P. [deceased]

Revision of the design of route indicators. Avtom., telen. i
sviaz 3 no.9:35-36 S '59. (MIRA 13:2)
(Railroads--Signaling)

ACC NR: AM6013720

Monograph

UR/

Baydakov, Vadim Borisovich; Ivanov-Emin, Lev Nikolayevich

Aircraft aeromechanics (Aeromekhanika letatel'nykh apparatov) Moscow, Izd-vo "Mashinostroyeniye," 1965. 409 p. illus., biblio. Errata slip inserted. 7500 copies printed. A textbook for aviation technical schools.

TOPIC TAGS: aerodynamics, aeronautic engineering, aerodynamic design, rocket flight, missile technology

PURPOSE AND COVERAGE: This book outlines fundamentals of aeromechanics, the structure and physical properties of the atmosphere, aerodynamic characteristics of wings, and modern methods of aerodynamic investigations. Special chapters deal with the stability and controllability of flying vehicles (airplanes and rockets), and with methods of their aerodynamic and ballistic design. The book is intended as a textbook for students in technical aviation schools. It may be useful to medium-level technical personnel of aviation industry.

TABLE OF CONTENTS [abridged]:

Foreword -- 3

Introduction -- 5

Card 1/3

UDC: 629.13 : 533.6 (075.3)

ACC NR: AM6013720

Part 1. Fundamentals of aerodynamics

- Ch. I. Air and its properties -- 13
- Ch. II. Basic laws of the motion of liquids and gases -- 24
- Ch. III. Elements of gas dynamics -- 44
- Ch. IV. Methods of experimental investigations -- 75

Part 2. Aerodynamic characteristics of airplanes and rockets

- Ch. V. Aerodynamic characteristics of isolated lifting surfaces -- 103
- Ch. VI. Aerodynamic characteristics of rotating bodies -- 147
- Ch. VII. Aerodynamic characteristics of flying vehicles -- 166

Part 3. Power plants

- Ch. VIII. Characteristics of propeller engines -- 218
- Ch. IX. Jet engines -- 227

Part 4. Motion of a flying vehicle

- Ch. X. General equation of the motion of flying vehicle -- 246
- Ch. XI. Stability of flying vehicles -- 261

Card 2/3

ACC NR: AM6013720

Part 5. Aeromechanics of aircraft

Ch. XII. Aerodynamic design of aircraft -- 280

Ch. XIII. Methods of aerodynamic design of aircraft -- 307

Ch. XIV. Stability and controllability of aircraft -- 329

Part 6. Flight of the rocket

Ch. XV. Motion of a rocket on trajectory -- 357

Ch. XVI. Aerodynamic and ballistic design of rockets -- 390

Appendix. The international standard atmosphere -- 402

Bibliography -- 406

SUB CODE: 01, 02/ SUBM DATE: 27Nov65/ ORIG REF: 041/ OTH REF: 005

Card 3/3

L 11083-65 EWT(1)/EWT(m)/EEC(t)/EWP(t)/EWP(b) IJP(c)/APWL/AS(mp)-2/ESD(t)

JP

ACCESSION NR: AP4046633

S/0181/64/006/010/3137/3140

AUTHORS: Baranskiy, P. I.; Baydakov, V. V.; Kurilo, P. M.

TITLE: Anisotropy of the Hall coefficient of n-type germanium in the mixed scattering region ^(t)

SOURCE: Fizika tverdogo tela, v. 6, no. 10, 1964, 3137-3140

TOPIC TAGS: Hall coefficient, anisotropy, carrier scattering, lattice scattering, impurity scattering, germanium semiconductor

ABSTRACT: The anisotropy of the Hall coefficient in the region of mixed scattering (lattice and impurity) was investigated in n-type germanium prepared from a homogeneous ingot with resistivity approximately 0.5 ohm-cm. The angular dependence of the quantity $\Delta R/R(0)$ (R -- Hall coefficient) was measured as a function of the magnetic field direction in a plane perpendicular to the current direction in three series of samples. In the samples of each of these series

Card 1/3

L 11083-65

ACCESSION NR: AP4046633

2

the current was made to flow along the directions [111], [100], and [110]. The test procedure was described in an earlier paper by two of the authors (Baranskiy and Kurilo, *FTT* v. 6, 54, 1964). The tests were made in intermediate magnetic fields ($\mu H/c \approx 1$). The impurity scattering was produced by antimony with a concentration $3.2 \times 10^{15} \text{ cm}^{-3}$. The results show that even a small contribution of impurity scattering reduces noticeably the value of $\Delta R/R(0)$ compared with the case of pure lattice scattering. Furthermore, in the case when the current was parallel to the [110] direction the impurity scattering (at small angles between the current and the field) leads even to a reversal of the sign of $\Delta R/R(0)$. This indicates that the concentration interval of samples intended for use in applications where R is supposed to be independent of the field, can be expanded appreciably by suitable choice of the angle between the field and the current. The authors are deeply grateful to Professor A. G. Samoylovich and Doctor of Physical Mathematical Sciences Ye. G. Miselyuk for a fruitful discussion of the results of the work, and

Card 2/3

L 11083-65

ACCESSION NR: AP4046633

also for useful advice." Orig. art. has: 2 figures.

ASSOCIATION: Institut poluprovodnikov AN UkrSSR, Kiev (Institute
of Semiconductors AN UkrSSR)

SUBMITTED: 18May64

ENCL: 00

SUB CODE: SS, EM

NR REF SOV: 008

OTHER: 001

Card 3/3

BARANSKIY, P.I., BAYDAKOV, V.V.; KURILCO, P.M.

Anisotropy of the Hall coefficient of n-germanium in the
mixed scattering region. Fiz. tver. tela 6 no.10:3137-
3140 0 '64. (MIRA 17:12)

1. Institut poluprovodnikov AN UkrSSR, Kiev.

BAYDAKOVA, Z. L.

DECEASED

1963/4

MEDICAL SCIENCES

(1962)

OGURTSOV, A.N., inzh.; DONTSOV, N.V., master; BAYDAL, K.P., master

Photoelectric control of coal feeding. Stroim. 6
no.4:25-26 Ap '60. (MIRA 13:6)

1. Cherenushkinskiy keramicheskiy zavod.
(Photoelectric cells) (Automatic control)
(Ceramics)

BAYDAL, K.P.; DONTSOV, N.V.; OGURTSOV, A.N.

Automatic unit for signaling the presence of metal in the mold-
ing batch. Stroi. mat. 6 no.10:28 0 '60. (MIRA 13:10)
(Electronic instruments)

DONTSOV, N.V.; OGURTSOV, A.M.; inzh.; BAYDAL, K.P., master otzhoga

Automatic control of lighting systems. Gor. khoz. Mosk. 34 no.11:30-31 N '60. (MIRA 13:11)

1. Cheremushkinskiy keramicheskiy zavod. 2. Master elektrotsekha Cheremushkinskogo keramicheskogo zavoda (for Dontsov). 3. Byuro sodeystviya ratsionalizatsii i izobretatel'stvu (for Ogurtsov). (Moscow--Factories--Lighting) (Automatic control)

BAYDAL, K.P.; ANTONOVA, N.N., inzh., red.

[Automation and mechanization in the production of ceramics; collection of specifications of the proposals of efficiency promoters. From the experiences of the Cheremushki, Taganrog and Rostov Plants] Avtomatizatsiia i mekhanizatsiia v proizvodstve keramicheskikh izdelii; sbornik opisani ratsionalizatorskikh predlozhenii. Iz opyta Cheremushkinskogo, Taganrogskogo i Rostovskikh zavodov. Moskva, Gosstroizdat, 1962. 23 p. (MIRA 17:3)

1. Starshiy inzhener tekhnicheskogo otdela Gosudarstvennogo respublikanskogo instituta po proyektirovaniyu promyshlennosti stroitel'nykh materialov RSFSR (for Baydal).

BEYDAL, M. KH.

"Problem of Zonal Circulation of the Atmosphere"

Trudy Kazakhsk. n.-i. gidromet. in-ta, No 3, 1954, 31-36

The return of atmospheric circulation from meridional type to zonal type (the formation of latitudinal planetary frontal zone) occurs on the average during the year every 22 days (15-37 days). In certain regions a regular return to similar positions characteristic for zonal circulation with a rhythm of 20-24 days is detected. The study of the laws governing the transition of zonal circulation into meridional and vice versa is one of the most illuminating ways to solve the problem of the long-range forecasting of weather. (RZhGeol, No 9, 1955)

SO: Sum-No 845 , 7 Mar 56

RAYDAL, M.Kh. : SEREBRYAKOVA, A.A.

Climatic characteristics of cold waves during wintertime in Kazakhstan.
Trudy KazNIGMI no.5:37-43 '55. (MIRA 9:10)
(Kazakhstan--Climate)

BAYDAL, M.Kh.

Special features in the conversion of seasonal macrosynoptic
processes. Trudy Kaz. NIOMI no.6:33-47 '56. (MLRA 10:9)
(Atmosphere)

BAYDAL, M.Kh.

BAYDAL, M.Kh.

Recurrence of natural synoptic periods with a west-easterly
circulation. Trudy Kaz. NIIMI no.6:48-55 '56. (MIRA 10:9)
(Atmosphere)

10(4)

SOV/50-59-10-11/25

AUTHORS: Baydal, M. Kh., Zhilyayev, F. G.

TITLE: Experience Collected in the Hydrometeorological Service of Fishing in Fall in the Northeast Caspian Sea

PERIODICAL: Meteorologiya i gidrologiya, 1959, Nr 10, pp 32 - 33 (USSR)

ABSTRACT: In the Northeast Caspian Sea, the greater part of fish is caught in fall and especially in the period before the lake freezes up. In this connection, the hydrometeorological service has to master responsible tasks, that is to say, the fishing organizations must be given reliable advice and special weather forecasts. Fishing is mostly done in the shallow coastal zone, which is silted up by off-shore storms. Further, the actions of the trawlers are complicated, and the tackles are torn off and carried away. Dangerous temperature drops are accompanied by water temperature of almost zero. In 1956 and 1957 experts of the Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut (Kazakh Scientific Hydrometeorological Research Institute) and Alma-Atinskoye byuro pogody (Alma-Ata Weather Bureau) assisted the Gur'yevskoye gidrometeobyuro (Gur'yev Hydro-meteorological Bureau) by establishing a joint service for the

Card 1/2

Experience Collected in the Hydrometeorological Service SOV/50-59-10-11/25
of Fishing in Fall in the Northeast Caspian Sea

fishing in the Northeast Caspian Sea before the lake froze up. The authors of this article report on the cooperation of these organizations, and give a brief description of this service in 1957. The assistance of the hydrometeorological service in sealing in the Northeast Caspian Sea is illustrated by another example. The article is concluded with an enumeration of the shortcomings of the special hydrometeorological service of fishing in those areas.

Card 2/2

BAYDAL, M.Kh.

Principles of a complex large-scale circulation method in
long-range weather forecasting. Trudy KazNIGMI no.10:37-72
'59. (MIRA 13:4)

(Weather forecasting)

BAYDAL, M.kh.

Epochal characteristics of atmospheric circulation and related
phenomena. Trudy KASHIGMI no.10:73-81 '59.
(MIRA 13:4)

(Climatology)

BAYDAL, M.Kh.; UTESHEV, A.S.

Connection between droughts in the south of the European part of the
U.S.S.R. and the northern half of the Kazakh S.S.R. Trudy KasNICMI
no.11:130-144 '59. (MIRA 13:6)
(Russia, Southern--Droughts)
(Kazakhstan--Droughts)

UTIMAGAMBETOV, M.M., kand.geogr.nauk; BERLYAND, T.G., kand.geogr.nauk;
BEZVERKHNIY, Sh.A., kand.fiz.-matem.nauk; BAYDAL, M.Kh., kand.
geogr.nauk; KUZNETSOV, A.T., kand.geogr.nauk; CHUDOROV, L.A.,
doktor geogr.nauk; SHVIREVA, Yu.G., mladshiy nauchnyy sotrudnik;
UTESHEV, A.S., kand.geogr.nauk; GOL'TSBERG, I.A., doktor geogr.
nauk; KLYKOVA, Z.D., starshiy nauchnyy sotrudnik; MEN'SHIKOVA,
Ye.A., mladshiy nauchnyy sotrudnik; GEL'MGOL'TS, N.F., starshiy
nauchnyy sotrudnik; PROKHOROV, I.I., starshiy nauchnyy sotrudnik;
TKACHENKO, N.S., mladshiy nauchnyy sotrudnik; ZHDANOVA, L.P.,
red.; BRAYNINA, M.I., tekhn.red.

[Climate of Kazakhstan] Klimet Kazekhatana. Pod red. A.S.Ute-
sheva. Leningrad, Gidrometeor.izd-vo, 1959. 366 p.

(MIRA 13:5)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeoro-
logicheskoy sluzhby. 2. Kazakhskiy pedagogicheskiy institut
(KazPI) (for Utimagambetov). 3. Glavnaya geofizicheskaya observa-
toriya im. A.I.Voyeykova (GGO) (for Berlyand, Gol'tsberg). 4. Ka-
zakhskiy nauchno-issledovatel'skiy gidrometeorologicheskiy insti-
tut KazNIGMI) (for Bezverkhniy, Baydal, Kuznetsov, Uteshev, Kly-
kova, Men'shikova, Gel'mgol'ts, Prokhorov, Tkachenko). 5. Insti-
tut geografii Akademii nauk SSSR (IG AN SSSR) for Shvyreva).

(Kazakhstan--Climate)

29876

S/169/61/000/009/029/056

D228/D304

3,5140 (1041)

AUTHORS: Semenov, M. F., and Baydal, M. Kh.

TITLE: Isolations of high cold cyclones connected with turns of high-altitude ridges and troughs

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 9, 1961, 35, abstract 9B263 (Tr. Kazakhsk. nauchno-issled. gidro-meteorol. in-ta, no. 15, 1960, 60-66)

TEXT: In the formation and movement of cyclones and anticyclones an important role is played by planetary high-altitude frontal zones (HAFZ), whose characteristics remain unchanged during a natural synoptic period. Intrapertiod changes are caused by the definite evolution of the HAFZ. One of the peculiarities of the transformation of HAFZ inside a period is the clockwise turn of high-altitude ridges and near-surface anticyclones, with which is connected the isolation of high cold cyclones. The study of this question is of important significance for forecasting atmospheric processes both on the ground and at altitudes. It is calcu-

Card 1/2

29876

S/169/61/000/009/029/058

D228/D304

Isolations of high cold...

lated that more than one-third of the overall number, one-half of the meridional, and more than three-quarters of the natural synoptic periods, in which the ridges and troughs turn, are accompanied by the isolation of high cold cyclones. It is recommended that the beginning and end of the turn of the axis of a high-altitude ridge are considered as the boundaries of a natural synoptic period, whose general features may tend to represent the further evolution of the HAFZ and the dynamics of near-surface baric formations. Research has shown that high cold cyclonic-eddies are formed in the southeastern part of the trough of the HAFZ situated to the east of the turning ridge. Maps are given which indicate the areas of the pre-eminent formation of high isolated cyclones when the original position of the HAFZ is somewhat varied. On examining 165 instances of a natural synoptic period, in which cyclones were clearly isolated, it appeared that in 89% of the cases meridional circulation gives place to zonal circulation; the use of this as a prognostic criterion is proposed. In conclusion, recommendations are given for forecasting the isolation of high cold cyclones and the end of a natural synoptic period. [Abstracter's note: Complete translation.] ✓

Card 2/2

BAYDAL, M.Kh.; GREENYUK, Ye.V.

Movement of baric centers near the ground in the east-west
circulation pattern. Trudy KazNIGMI no.15:67-72 '60.

(MIRA 14:1)

(Cyclones)

BAYDAL, M.Kh.

Prognostic properties of charts representing integral deviation
of atmospheric pressure from the normal. Trudy KazNIGMI no.15:
73-79 '60. (MIRA 14:1)
(Cyclones) (Weather forecasting)

BAYDAL, M.Kh.

Macrocirculation types as a foundation for basic long-range forecasts of seasonal phenomena in Kazakhstan. Trudy KazNIGMI no.15: 80-93 '60. (MIRA 14:1)
(Kazakhstan--Weather forecasting)

ACCESSION NR: AT4015883

S/2650/63/000/020/0048/0063

AUTHOR: Baydal, M. Kh.

TITLE: Peculiarities of transformation of macrocirculation processes and long-range weather forecasts for Kazakhstan

SOURCE: Alma-Ata. Kazakhskiy n.-l. gidrometeorol. institut. Trudy*, no. 20, 1963. Voprosy* sinoptiki i meteorologii (Problems of synoptics and meteorology), 48-63

TOPIC TAGS: meteorology, weather forecasting, long-range weather forecasting, atmospheric circulation, air temperature, solar activity, sunspot, atmospheric front

ABSTRACT: The author defines and gives the results of investigation of four categories of regular processes of atmospheric circulation. The first category is characterized by more or less regular change of opposite states. These are manifested in the following macro-processes: a) circulation between hemispheres, b) polar-equatorial circulation, c) monsoon circulation. The second category includes: a) change of the geographic position of the pole of circulation, b) alternation of the westerly, easterly and meridional circulation forms. The third

Card 1/3

ACCESSION NR: AT4015883

category includes regularities associated with the high-level frontal zones: a) processes caused by the wave properties of the planetary high-level frontal zone, b) formation of moving cyclones and anticyclones resulting from advective-dynamic processes in frontal zones, c) cyclo- and anticyclogenesis, caused by macro-orographic processes. The problems discussed under these first three categories are refinements of the work of the author published elsewhere, or elaboration, with some special cases cited, of work done by other authors. The fourth category includes: seasonal rhythms of synoptic processes, b) calendar peculiarities in the annual variation of circulation forms. The combination and interaction of all processes in all four categories determine the long-term values of meteorological elements. Special development of any of these processes causes a significant weather anomaly. Study of the processes has often been done without taking into account the type of associated process, seasons of the year and total intensity of planetary circulation; the dependence of a rhythmic cycle on these three factors now has been demonstrated, making it possible to apply these cycles in long-range weather forecasting. Calendar peculiarities exist in both the annual variation of types of synoptic processes and in the annual variation of a number of meteorological elements. There is a close relationship between these calendar peculiarities and the peculiarities in turn are related to circulation epochs. In studying the development of general circulation and in improving long-range

Cord 2/3

ACCESSION NR: AT4015883

forecasting methods it also is necessary to take into account a number of asynchronous relationships between hydrometeorological elements and the relationship of these elements to solar activity indices. It has been demonstrated, for example, that the sign of anomalies of mean monthly air temperature in Kazakhstan are closely related to sunspot number. Precipitation also is dependent on the epochal extremes of solar activity. The secular variation of solar activity also exerts an important influence on the precipitation regime. It has been noted that there is a variation of hydrometeorological elements with a period of two years, another phenomenon useful in long-range forecasting. Orig. art. has: 8 figures and 3 tables.

ASSOCIATION: Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (Kazakh Hydrometeorological Scientific Research Institute)

SUBMITTED: 00

DATE ACQ: 30Jan64

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NO REF SOV: 004

OTHER: 000

Card 3/3

ACCESSION NR: AT4015884

S/2650/63/000/020/0064/0075

AUTHOR: Baydal, M. Kh.

TITLE: Weather and climatic characteristics of the principal circulation forms.

SOURCE: Alma-Ata. Kazakhskiy n.-i. gidrometeorol. institut. Trudy*, no. 20, 1963. Voprosy* sinoptiki i meteorologii (Problems of synoptics and meteorology), 64-75

TOPIC TAGS: meteorology, hydrology, climate, climatology, weather forecasting, atmospheric circulation, long-range weather forecasting

ABSTRACT: Weather, climatic and hydrological characteristics are shown to be related to the three macrotypes of circulation (easterly, westerly, meridional) in Kazakhstan. Investigations revealing the structure of mean long-term values (norms) of meteorological elements for circulation epochs are described. The three Vangengeym circulation forms used are valuable for long-range forecasting, but their determination was subjective prior to the author's development of objective classification criteria, given here. Several other factors must be taken into account when applying the system. Particular attention is given to the position in the high latitudes of the pole of circulation, that is, the center of the circle described by the planetary high-level frontal zone in the northern hemi-

Card 1/3

ACCESSION NR: AT4015884

sphere. The orientation of the principal branches of the planetary high-level frontal zone changes appreciably in dependence on the position of the pole of circulation, thereby affecting the directions of movement of pressure systems. The planetary high-level frontal zone in the northern hemisphere has a symmetric position relative to the pole of circulation and is displaced from the geographic pole in the same direction as the pole of circulation itself. The mean distance between the planetary front and the pole is approximately 4,000 km. The most significant changes of meteorological elements in regions of the northern hemisphere are observed when there is movement of the pole of circulation from one quasi-stationary position to another. Atmospheric circulation in the hemisphere can be considered to have the following kinematic states or planetary types of macrocirculation: 1) central, 2) peripheral, 3) dicentral, the first two with several varieties. The study of the position and behavior of the planetary high-level frontal zone is essential in broadening the base for long-range weather forecasting. The given system of classification, related to the pole of circulation and the planetary high-level frontal zone can assist in explaining climatic variations and variations in the regime of rivers and lakes. Knowing the type of predominant atmospheric processes will make it possible to determine the quantitative distribution of precipitation in mountain regions, for example, where there are no observation stations. The presence of a close relationship

Card 2/3

ACCESSION NR: AT4015884

between weather and climatic characteristics and the three types of atmospheric circulation makes it possible to find a relationship between circulation conditions and hydrological phenomena; for example, a relationship has been found between circulation types and high-water characteristics on Russian rivers. Ice phenomena on the Caspian Sea and Lake Balkash have been related closely to circulation types. Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (Kazakh Hydrometeorological Scientific Research Institute)

SUBMITTED: 00

DATE ACQ: 30Jan64

ENCL: 00

SUB CODE: AS

NO REF SOV: 013

OTHER: 000

Card 3/3

BAYDAL, M.Kh.; FADEYEVA, I.F.

Finding index numbers for standard processes of the atmospheric circulation. Trudy KazNIGMI no.20:90-95 '63. (MIRA 17:5)

BAYDAL, M. Kh.

Part III of Kazakh Institute Work on Weather and Climate Forecasting

This monograph, Fundamentals of the Complex Macrocirculation Method of Long-Range Weather and Seasonal Phenomena Forecasting, by M. Kh. Baydal, is the 3rd part of the work, Long-Range Forecasts of the Weather and Climate Fluctuations in Kazakhstan, published by the Kazakh Scientific Research Hydrometeorological Institute of the Main Administration of the Hydrometeorological Service, Council of Ministers USSR. It consists of 305 pages of descriptive text, a 406-item bibliography, 24 tables on occurrences of fundamental variations of transformation of the three forms of circulation, monthly analogs (graphs) of transformation of forms of atmospheric circulation, and 30 diagrams of the geographic distribution of anomalies of the average monthly temperature of the air and of precipitation.

(Abstract: Dolgosrochnyye Prognozy Pogody i Kolebaniy Klimata Kazakhstana. Chast' III. Osnovy Kompleksnogo Makrotsirkulyatsionnogo Metoda Dolgosrochnykh Prognozov Pogody i Sezonnykh Yavleniy, by M. Kh. Baydal, Leningrad, 1965)

BAYDAL, M. M.

Nature and prognostic evaluation of a two-year recurrence of hydrometeorological phenomena. Trudy KazNIGMI n° 23-2-8 1965.

Characteristics of the interaction of processes of the atmospheric circulation over the northern hemisphere. Ibid.:9-13

Terminal precipitation forecast on the basis of constant-pressure charts. Ibid.:21-26 (MIRA 18:9)

L 2805-66 EWT(1)/FCC GW

ACCESSION NR: AT5021641

UR/2650/65/000/023/0009/0013

AUTHOR: Baydal, M. Kh. 44, 55

TITLE: Peculiarities of interaction processes of atmospheric circulation over the northern hemisphere

SOURCE: Alma-Ata. Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut. Trudy, no. 23, 1965. Voprosy sinopticheskikh i ledovykh prognosov (Problems in synoptic and ice forecasts), 9-13

TOPIC TAGS: atmosphere, temperature, weather forecasting

ABSTRACT: The author examines the characteristics reflecting interactions of atmospheric circulation of the Atlantic-Eurasian and the Pacific-North American sectors of the northern hemisphere. The circulation index was determined by average monthly charts of AT₅₀₀, referring the processes over the two sectors to a particular type of circulation, whether E-W or N-S. For the analysis, months were chosen for initial data during which circulation in the Pacific-North American sector was chiefly E-W and that in the Eurasian sector was chiefly N-S. The combinations of circulation types for the standard and succeeding months were

Card 1/2

L 2805-66

ACCESSION NR: AT5021641

3

then examined. The sign and value of air temperature were determined for different latitudes. Analysis of the results indicates that E-W circulation is dominant in the northern hemisphere. It may be said that the initial E-W circulation spreads from the American sector to the European sector. In 70% of the succeeding months the same type of circulation is preserved in the American sector. In the months succeeding the standard month, with the circulation combinations indicated, positive anomalies of air temperature were observed above European SSSR, western Siberia, and Kazakhstan. The probability of this anomaly proved to be 68-81%. The average temperature was 1.3C higher than normal. For the winter half of the year, the probability of a positive air-temperature anomaly increases to 90% under the same circulation conditions, and it reaches 100% over Kazakhstan. It is shown that forecasting of circulation conditions and of weather for any part of Eurasia requires consideration of the dominant type of circulation for the preceding month not only over Eurasia itself but also over the Pacific Ocean and North America. Orig. art. has: 3 tables.

ASSOCIATION: Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut. (Kazakh Scientific Research Hydrometeorological Institute) 44, st

SUBMITTED: 00

ENGL: 00

SUB CODE: ES

NO REF SOV: 000

OTHER: 000

Card 22. (SC)

BAYDAL, Mikhail Kharlampiyevich; VAYTSMAN, A.I., red.

[Long-range forecasting of the weather and climatic
fluctuations in Kazakhstan] Dolgosrochnye prognozy po-
gody i kolebani klimata Kazakhstana. Leningrad, Gidro-
meteoizdat. Pt.3. 1965. 361 p. (MIRA 18:12)

L 3877-66 EWT(1)/FCC GW

AM5025456

BOOK EXPLOITATION

UR/ 23
551.509 20
B44

Baydal, Mikhail Kharlamniyevich

44,55
Long-range weather forecasting and climate fluctuations in Kazakhstan; macrocirculation analysis and long-range forecasting of weather, seasonal phenomena, and climate fluctuations in Kazakhstan (Dolgosrochnyye prognozy pogody i kolebaniy klimata Kazakhstana; makrotsirkulyatsionnyy analiz i dolgosrochnoye prognozirovaniye pogody, sezonnykh yavleniy i kolebaniy klimata Kazakhstana) pt. 1 & 2. Leningrad, Gidrometeoizdat, 1964. 445 p. illus., biblio. (At head of title: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR. Kazakhskiy nauchnoissledovatel'skiy gidrometeorologicheskii institut)

12,44,55
TOPIC TAGS: long range weather forecasting/Kazakhstan, climatic fluctuation/Kazakhstan, macrocirculation/Kazakhstan, atmospheric circulation/Kazakhstan

PURPOSE AND COVERAGE: This book is intended for scientists and technicians working in meteorology, climatology, hydrology, and

Card 1/6

L 3877-66

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3

agrometeorology. The author presents a summary of his research, performed at the Kazakh Scientific Research Hydrometeorological Institute during the last 10 years, on atmospheric circulation, ^{44,55} long-term characteristics of basic forms and types of atmospheric circulation over Eurasia and the Northern Hemisphere, and their role in the formation of local synoptic processes over Kazakhstan and Central Asia. A detailed account is given of the characteristics of atmospheric circulation which cause anomalies in weather, in seasonal hydrometeorological and agrometeorological phenomena, and in long-range fluctuations in climate and in glaciated areas. A number of prognostic relationships, making it possible to compile basic forecasts of seasonal phenomena several months to a year in advance, are also discussed. A supplement is included which contains quantitative data (tables, charts) on atmospheric circulation in the Northern Hemisphere, by region, which can be used to make comprehensive studies of atmospheric circulation with the use of electronic computers. The present book contains only the first two parts of the work. Part III was to have been published in 1965. There are 136 figures, 66 tables, and 385 references of which 311 are Soviet.

Card 2/6.

L 3877-66

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TABLE OF CONTENTS [abridged]:

Author's note -- 3

Foreword -- 6

Introduction -- 9

PART I. PRINCIPAL FORMS OF ATMOSPHERIC CIRCULATION AND THEIR
METEOROLOGICAL REGIME IN KAZAKHSTAN

Ch. I. Principal types and categories of atmospheric circulation -- 25

Ch. II. Planetary systems of atmospheric circulation in the
Northern Hemisphere -- 140

Ch. III. Long-range regime and fluctuations in the recurrence of
three types of circulation -- 165

Ch. IV. Relationship between local peculiarities of synoptic pro-
cesses and basic types of circulation -- 187

Card 3/6

L 3877-66

AM5025456

Ch. V. Meteorological characteristics of three types of atmospheric circulation -- 220

PART II. MACROCIRCULATION CONDITIONS RESPONSIBLE FOR SEASONAL METEOROLOGICAL PHENOMENA IN KAZAKHSTAN

Ch. VI. Macrocirculational conditions of seasonal meteorological phenomena -- 256

Ch. VII. Macrocirculational conditions of seasonal hydrological phenomena -- 268

Ch. VIII. Macrocirculational factors affecting the yield of grasses and weather conditions with respect to grazing in Kazakhstan--- 281

Ch. IX. Macrocirculational factors in the genesis and fluctuations in climate -- 290

Card 4/6

L 3877-66

AM5025456

APPENDICES

APPENDIXES

- I. Catalog of types of high-altitude baric fields in the Northern Hemisphere, by sectors -- 370
- II. Catalog of instances of disintegration of high-altitude crests accompanied by the formation of an isolated cyclone southeast of an adjacent trough -- 421
- III. Catalog of instances of atmospheric processes with the disintegration of surface anticyclones and emergence of southern cyclones -- 424
- IV. Territorial distribution of the mean monthly air-temperature anomaly in November--March at different places on the circulation belt -- 431

Card 5/6

L 3877-66

AM5025456

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ACC NR: AT7006960

SOURCE CODE: UR/2650/66/000/025/0003/0011

AUTHOR: Baydal, M. Kh.

ORG: none

TITLE: Epochal relations of the circulation pole with elements of the magnetic field and the instantaneous rotational pole of the earth

SOURCE: Alma-Ata. Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut. Trudy, no. 25, 1966. Voprosy meteorologii (Problems in meteorology), 3-11

TOPIC TAGS: weather forecasting, geomagnetic field, atmospheric pressure, atmospheric front

ABSTRACT: It has been noted that the center of the high frontal zone in the northern hemisphere does not always coincide with the center of the Arctic and that the front does not parallel the lines of latitude. Cyclonic or anticyclonic pressure structures develop in the center of the polar vortex, and the position of these structures is called the circulation pole by the author. It is generally toward the edge of the central Arctic region. Data have been compiled on secular variation in magnetic declination, movement of foci of pressure anomalies, and movement of the instantaneous rotational pole of the earth. These are shown on maps and are compared graphically. From a comparison of the various phenomena, it is concluded that the position of the

Card 1/2

ACC NR: AT7006960

circulation pole about the marginal part of the Arctic corresponds to the magnetic pole of the earth and to the intensity of solar radiation. Epochs of dominant position of the circulation pole at any particular marginal part of the Arctic show a coincidence with the maximum of magnetic declination. The frequent recurrence of a central Arctic position is due to decrease in anomalies of the instantaneous rotational pole of the earth. The author believes the relations here uncovered are of direct importance in long-range weather forecasting. Orig. art. has: 4 figures.

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SUBM DATE: none/

ORIG REF: 011

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ACC NR: AT7006973

SOURCE CODE: UR/2650/66/000/025/0122/0126

AUTHORS: Baydal, M. Kh.; Vdovenko, G. N.

ORG: none

TITLE: Refinement of a computational method for predicting rain on the basis of pressure maps

SOURCE: Alma-Ata. Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut. Trudy, no. 25, 1966. Voprosy meteorologii (Problems in meteorology), 122-126

TOPIC TAGS: weather forecasting, atmospheric pressure, atmospheric temperature

ABSTRACT: The authors have sought to refine a method for predicting rain proposed by them in 1963; application of the method to Frunze and the plains of Kazakhstan has also been considered. The method is based on daily changes in relative topography of pressure maps (300/500, 500/700, 700/1000) and the dew-point deficit at the 700-millibar level. Improvement is introduced by considering advection and the change in dew-point deficit from the 700-millibar level to the 500- and 300-millibar level. A good indicator of rain is a sharp decrease (more than 5°) in the dew-point deficit from one level to the overlying level, but there must not be a reversal in going on to the next level. Several actual examples of observed data are considered, and the results are encouraging. With consideration of this new modification, and on the

Cord 1/2

ACC NR: AT7006973

basis of tests, 84--86% reliability is attainable, if the procedure is strictly followed. Consideration of advection, in conjunction with the other refinements, should provide even better results, but radiosonde data are necessary, and these are too meager in the investigated area. If advection is weak, the sonde must be used at the site where prediction is desired. The authors conclude that their proposed refinements improve reliability, but that more refinement is possible and necessary.

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SUBM DATE: none/

ORIG REF: 003

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ACC NR: AT7006971

SOURCE CODE: UR/2650/66/000/025/0100/0105

AUTHORS: Ukrainskaya, V. S.; Baydal, M. Kh.

ORG: none

TITLE: Role of the circulation pole in the recurrence and intensity of northern incursions in northern Kazakhstan

SOURCE: Alma-Ata. Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy, no. 25, 1966. Voprosy meteorologii (Problems in meteorology), 100-105

TOPIC TAGS: atmospheric front, atmospheric circulation, weather forecasting

ABSTRACT: An explanation is given of the role played by variation in position of the circulation pole on the recurrence and intensity of northern incursions into northern Kazakhstan. By a northern incursion is meant the spread of cold Arctic air masses, normally formed in anticyclonic pressure systems and entering Kazakhstan from the north (northwest to northeast), causing a drop of 7° or more for 3 or more days at 11 stations in northern Kazakhstan. Incursions of this kind for the years 1956-64 have been tabulated according to type of circulation (using Vangeigeym's classification). The number of incursions corresponding to different positions of the circulation pole, the probability of positive or negative air-temperature anomalies

Card 1/2

ACC NR: AT7006971

with incursions of cold relative to position of the circulation pole, and the recurrence of different values of negative air-temperature anomalies relative to position of the circulation pole have been considered. From such comparisons it is concluded that the position of the circulation pole is essential, in addition to the standard elements of weather, for reliable prediction of extreme cooling during synoptic periods and of the sign and value of air-temperature anomalies in northern Kazakhstan. Orig. art. has: 4 tables.

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Card 2/2

BAYDALA, P.G. (Tomsk, 7, ul. Sovetskaya, d.34, kv.34)

Injury of the thoracic duct during resection of the esophagus for
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1. Iz kliniki gosspital'noy khirurgii (zav. - prof. K.N. Zivert)
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- BAYDALA, V.Ye., inzh.; VODOP'YANOV, K.S., inzh.

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